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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 19

Application Number: 09/597,236

Filing Date: June 20, 2000

Appellant(s): YAGASAKI, AKIHIKO

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John P. Shannon  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/28/2003.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 18-23 and 25-27 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

US 4,926,111	Lungu	05-1990
US 4,484,171	McLoughlin	11-1984

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLoughlin [US 4,484,171] in view of Lungu [US 4,926,111].

McLoughlin discloses an isolation transformer [see figure 7a] comprising:

- a multi-layer, multi-winding primary coil [24] fabricated by stacking coil layers formed by an insulated covered conductor;
- a multi-layer, multi-winding secondary coil [26] fabricated by stacking coil layers formed by an insulated covered conductor;
- a core structure [58]; and
- a conductive short-circuit means [28] disposed the primary and secondary coils.

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McLoughlin discloses the instant claimed invention except for the conductor being formed of insulated, covered copper and the short-circuit means being made of a thin conductive film sandwiched between the coil layers.

Lungu discloses an inductive component formed of an insulated conductive thin film copper wire [1].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the wire of Lungu for the conductors of McLoughlin for the purpose of reducing noise.

Regarding claims 21 and 24, the particular design of the primary and secondary windings would have been an obvious design consideration based on the intended application.

***(11) Response to Argument***

Regarding claims 18 and 27, it is argued that the prior art of record does not contain anything to suggest the desire ability of the combination of McLoughlin in view of Lungu. McLoughlin does not suggest a desire ability of using coil like those of Lungu rather than ordinary coils and Lungu does not suggest the use of two of its coils in the device of McLoughlin.

Examiner disagrees.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wire of McLoughlin to use the wire design of Lungu. Lungu teaches that the conductive thin film [3] coated over an insulative layer [2] for the copper wire [1] provides a reduction short-circuited turn effects [see column 3, lines 39-45]. A skilled artisan

would have been motivated to use wire design of Lungu for wire of McLoughlin for the purpose reducing the short-circuited turn effects.

Regarding claims 19, 22, 23 and 25, applicant argues that the combination of McLoughlin and Lungu proposed by the examiner does not have short-circuited rings sandwiched between each of the coil layers.

Examiner disagrees.

The conducting layers [3] of Lungu provide the claimed sandwiching arrangement.

It is also argued that the conducting thin film [3] disclosed by Lungu [column 4, lines 40-42] *to prevent the short circuit winding effect*. In comparison, the claimed invention called for the isolation transformer includes short circuit rings [formed by coating a copper wire].

Examiner disagrees.

Examiner only uses one of Lungu teaching of the conducting thin film layer [3] to reduce short-circuited turn effects [column 3, lines 34-45]. In the case that the conducting thin film layer [3] used by Lungu in column 4, lines 40-42, this only use in a high frequency applications. Applicant has not claimed, nor has examiner considered, any specific structure of the isolation transformer for use in a high frequency applications.

Regarding claims 20 and 26, it is argued that McLoughlin and Lungu do not disclose the short-circuit rings being sandwiched between selected coil layers.

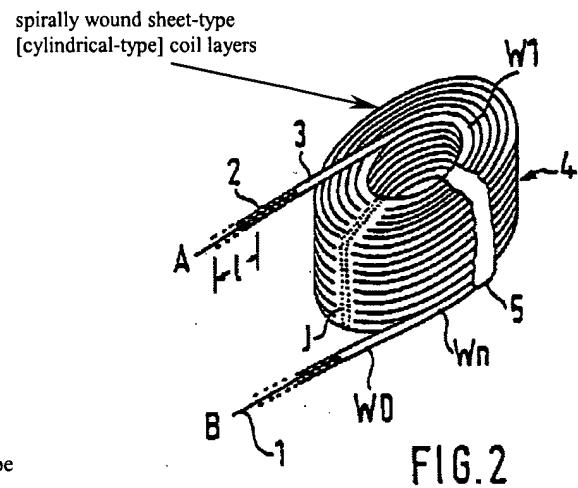
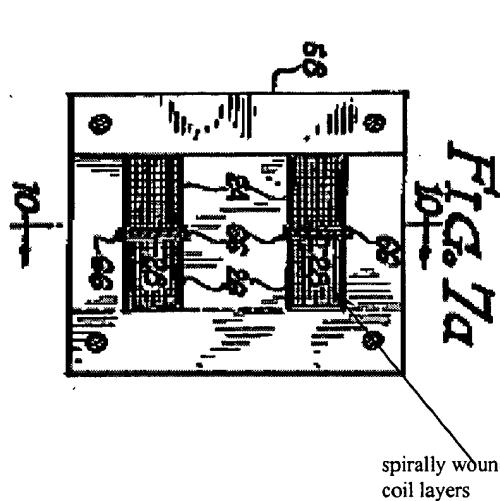
Examiner disagrees.

Applicant has not specified any specific selection of layers. It is noted that all of the layers may be selected as shown by Lungu.

Regarding claim 21, applicant argues that McLoughlin and Lungu fails to disclose sheet-type coil layers.

Examiner disagrees.

Both McLoughlin and Lungu disclose the sheet-type coil layers, as claimed [see below].



For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

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July 11, 2003

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